Tennessee Department of Safety and Homeland Security
71-0365/970499P

Information From Application

Engine	88.3 hp	65.8 kw
Max Operating Hours	500 hours	1 hp = 0.745699872 kw
Built: 1st Quarter 2010		

An EPA memorandum (dated September 6, 1995) regarding the calculation of potential to emit for emergency generators states the following: *"The EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-cast conditions.*

(Emission factors based on 40 CFR 60 JJJJ - Table 1)

	Power Rating (hp)	Emission Factor (g/hp-hr)	Allowable Emissions (lb/hr)	Allowable Emissions (tpy)
CO	88.3	387.0	75.34	18.83
NOx + HC	88.3	10.0	1.95	0.49

(Emission factors are from AP-42 Tables 3.2-2 and 3.2-3)*

	Heat input (MMBtu/hr)	Emission Factor (lb/MMBtu)	Actual Emissions (lb/hr)	Allowable at 500 hr/yr (ton/yr)
PM	0.23	1.50E-02	0.003	0.0008625
SO2	0.23	5.88E-04	0.000	0.0000338
CO	0.23	2.02E+00	0.465	0.1161500
VOC	0.23	7.40E-02	0.017	0.0042550
NOx	0.23	3.15E+00	0.725	0.1811250

*average values used from Tables 3.2-2 & 3.2-3 - engine is neither lean or rich burn

Allowable PM emissions

Design Heat Input (MMBtu/hr)	0.23	1 kw = 3412.14 BTU/hr
Allowable PM Emissions (lb/MMBtu)	0.60	TAPCR 1200-03-06-.02(2)
Allowable PM Emissions (lb/hr)	0.14	
Allowable PM Emissions (tons/year)	0.03	

prepared by AY, October 5, 2015